

General Knowledge Test

Subtests in the Following Areas:

English Language Skills and Essay

Mathematics

Reading

Section 82

General Knowledge Test

English Language Skills

1 Conceptual and organizational skills

1. Identify logical order in a written passage.
2. Identify irrelevant sentences.

2 Word choice skills

1. Choose the appropriate word or expression in context.
2. Recognize commonly confused or misused words or phrases.
3. Recognize diction and tone appropriate to a given audience.

3 Sentence structure skills

1. Recognize correct placement of modifiers.
2. Recognize parallelism, including parallel expressions for parallel ideas.
3. Recognize fragments, comma splices, and run-on sentences.

4 Grammar, spelling, capitalization, and punctuation skills

1. Identify standard verb forms.
2. Identify inappropriate shifts in verb tense.
3. Identify agreement between subject and verb.
4. Identify agreement between pronoun and antecedent.
5. Identify inappropriate pronoun shifts.
6. Identify clear pronoun references.
7. Identify proper case forms.
8. Identify the correct use of adjectives and adverbs.

9. Identify appropriate comparative and superlative degree forms.
10. Identify standard spelling.
11. Identify standard punctuation.
12. Identify standard capitalization.

General Knowledge Test

Essay

- Determine the purpose for writing.
- Formulate a thesis or statement of main idea.
- Organize ideas and details effectively.
- Provide adequate, relevant supporting material.
- Use effective transitions.
- Demonstrate a mature command of language.
- Avoid inappropriate use of slang, jargon, and clichés.
- Use a variety of sentence patterns effectively.
- Maintain consistent point of view.
- Observe the conventions of standard American English.

General Knowledge Test

Mathematics

1 Knowledge of number sense, concepts, and operations

1. Compare the relative value of real numbers (e.g., integers, fractions, decimals, percents, irrational numbers, and numbers expressed in exponential or scientific notation).
2. Solve real-world problems involving addition, subtraction, multiplication, and division of rational numbers (e.g., whole numbers, integers, decimals, percents, and fractions including mixed numbers).
3. Apply basic number theory concepts including the use of primes, composites, factors, and multiples in solving problems.
4. Apply the order of operations with or without grouping symbols.

2 Knowledge of measurement (using customary or metric units)

1. Solve real-world problems involving length, weight, mass, perimeter, area, capacity, and volume.
2. Solve real-world problems involving rated measures (e.g., miles per hour, meters per second, cost per item, and cost per unit).
3. Solve real-world problems involving scaled drawings (e.g., maps, blueprints, and models).
4. Solve real-world problems involving the change of units of measures of length, weight, mass, capacity, and time.
5. Solve real-world problems involving estimates of measures including length, weight, mass, temperature, time, money, perimeter, area, and volume.
6. Choose the correct reading, to a specified degree of accuracy, using instruments (e.g., scales, rulers, thermometers, measuring cups, protractors, and gauges).

3 Knowledge of geometry and spatial sense

1. Identify and/or classify simple two- and three-dimensional figures according to their properties.
2. Solve real-world and mathematical problems involving ratio, proportion, similarity, congruence, and the Pythagorean relationship.

3. Identify the location of ordered pairs of integers in all four quadrants of a coordinate system (graph) and use the coordinate system to apply the concepts of slope and distance to solve problems.
4. Identify real-world examples that represent geometric concepts including perpendicularity, parallelism, tangency, symmetry, and transformations (e.g., flips, slides, and turns).

4 Knowledge of algebraic thinking

1. Analyze and generalize patterns including arithmetic and geometric sequences.
2. Interpret algebraic expressions using words, symbols, variables, tables, and graphs.
3. Solve equations and inequalities graphically or algebraically.
4. Determine whether a number or ordered pair is among the solutions of given equations or inequalities.

5 Knowledge of data analysis and probability

1. Analyze data and solve problems using data presented in histograms, bar graphs, circle graphs, pictographs, tables, and charts.
2. Identify how the presentation of data can lead to different or inappropriate interpretations.
3. Calculate range, mean, median, and mode(s) from sets of data and interpret the meaning of the measures of central tendency (i.e., mean, median, and mode) and dispersion (i.e., range and standard deviation).
4. Identify how the measures of central tendency (i.e., mean, median, or mode) can lead to different interpretations.
5. Calculate the probability of a specified outcome.
6. Solve and interpret real-world problems involving probability using counting procedures, tables, tree diagrams, and the concepts of permutations and combinations.

General Knowledge Test Reading

All items are passage based.

1 Knowledge of literal comprehension

1. Recognize main ideas.
2. Identify supporting details.
3. Determine meaning of words or phrases in context.

2 Knowledge of inferential comprehension

1. Determine purpose.
2. Identify overall organizational pattern.
3. Distinguish between fact and opinion.
4. Recognize bias.
5. Recognize tone.
6. Determine relationships between sentences.
7. Analyze the validity of arguments.
8. Draw logical inferences and conclusions.